

FISCAL NOTE

PRIVATE COST

I. RULE NUMBER

Rule Number and Name	<i>10 CSR 20-8.300 Manure Storage Design Regulations</i>
Type of Rulemaking	<i>Proposed Rule Amendment</i>

II. SUMMARY OF FISCAL IMPACT

Estimate of the number of entities by class which would likely be affected by the adoption of the proposed rule:	Classification by types of the business entities which would likely be affected:	Estimate in the aggregate as to the cost of compliance with the rule by the affected entities:
One facility per year	541330 Engineering services 112112 Cattle Feedlots 112210 Hog and Pig Farming 112420 Goat Farming 112410 Sheep Farming 112120 Dairy Cattle and Milk Production 112320 Broilers and Other Meat Type Chicken Production 112310 Chicken Egg Production 112330 Turkey Production 112340 Poultry Hatcheries 112390 Other Poultry Production 112920 Horses and Other Equine Production	\$7,970 increase

III. WORKSHEET

The revisions to 10 CSR 20-8.300 *Manure Storage Design Regulations* will:

- 1) improve and add several definitions
- 2) clarify regarding the items required in an application for engineering review
- 3) remove nutrient management plan requirements that are redundant with the requirements of 10 CSR 20-6.300 Confined Animal Feeding Operations
- 4) change design requirements for lagoons
- 5) make a name change of Missouri Geological Survey

COST SAVINGS:

Fewer hours needed for preparing application/plans

$$2 \text{ hours/application} \times \$120.00/\text{hour (engineering fee)} \times 1 \text{ application} = \$2400 \text{ savings}$$

COST INCREASES:

Increased number of yards needed in lagoon berms

$$17,000 \text{ cubic yards} \times 0.2 \times \$ 3.05/\text{cy} \times 1 \text{ application} = \$10,370 \text{ increased cost}$$

TOTAL COST INCREASES	\$10,370
<u>TOTAL COST SAVINGS</u>	<u>\$2,400</u>
TOTAL NET COST INCREASE	\$7,970

IV. ASSUMPTIONS

1. An annualized aggregate cost of this rulemaking is used for the purposes of providing the aggregate cost for the life of the rule. The annualized aggregate cost is the agency estimate of the average costs that will be incurred in any future year, no matter how far distant. For convenience of calculating this fiscal note over a reasonable time period, the life of the rule is assumed to be indefinite. If the life of the rule extends beyond 1 year, the annual costs for additional years will be consistent with the assumptions used to calculate annual costs as identified in this fiscal note.
2. The number of animal waste lagoons being constructed has dropped in the last 20 years with the industry standard for swine facilities changing to the use of deep pit systems. This trend may see a reversal with the increased interest in biogas collection from covered lagoons.

Lagoons are commonly used on dairy operations however we receive very few construction permit applications for new or expanding dairies. Therefore no additional applications are calculated in for dairy. At this point we only anticipate receiving 1 application per year for a lagoon or lagoon system from the integrators.

3. With fewer requirements in the engineering report, the engineer will use 2 fewer hours to complete the design. Engineering fees are based on a Deltek Axium 2011 survey median for engineering billing rates <https://www.axium.com/blog/architecture-and-engineering-billing-rate-trends/>.
4. Top widths will increase by at least two times based on fill heights. This increase will increase the total yardage in lagoon berms by a factor of 0.2. An average yardage value of 17,000 cy was used at a construction rate of \$3.05 per cubic yard. This cost was gleaned from data collected annually by the NRCS.
5. The net cost of compliance was calculated without applying a factor for inflation.